



# Desert Soul

## Learning Conservation Through Self Revelation

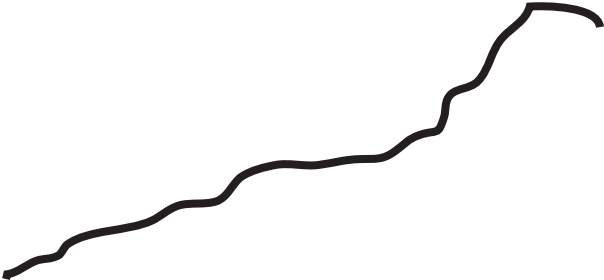
ELIZABETH A. MEDD

PROFESSOR MARK BARNHOUSE



PROBLEM STATEMENT

How can insight from past cultures of the Sonoran Desert inform and direct conservation and sustainability for the future of the desert?





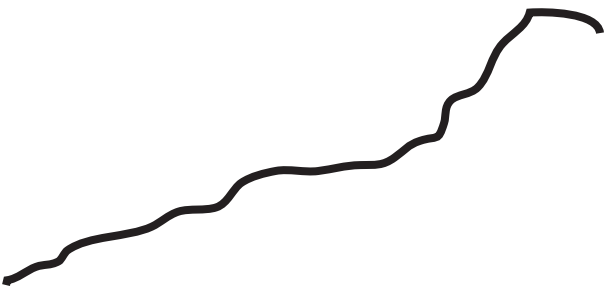
STATEMENT OF INTENT

TYPOLOGY

A combination of hospitality, a museum, and revitalized natural landscape

CLAIM

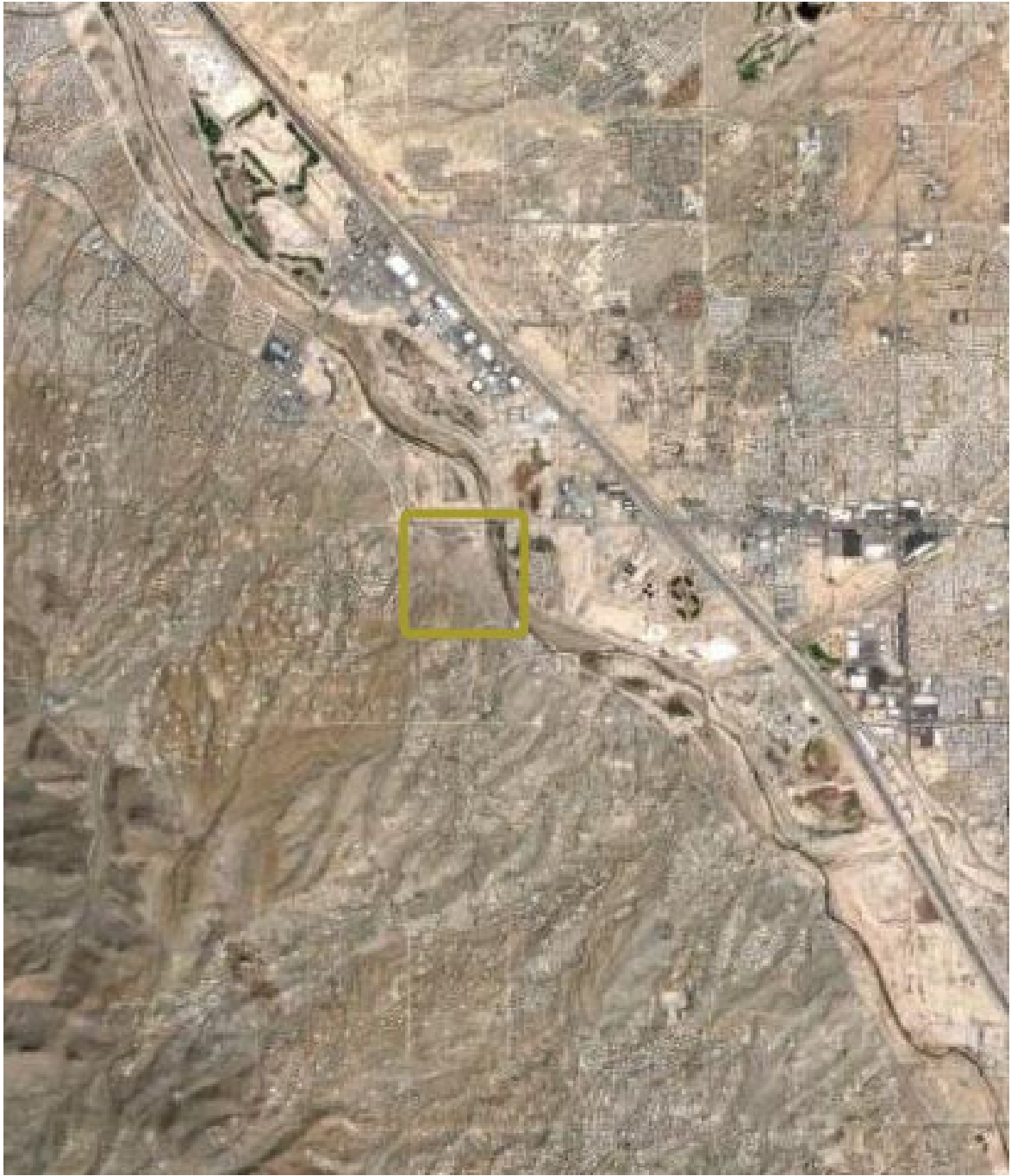
By relating to psychological and practical premises from past cultures of the Sonoran Desert it is possible to learn how to create and practice conservation and sustainability in desert architecture.



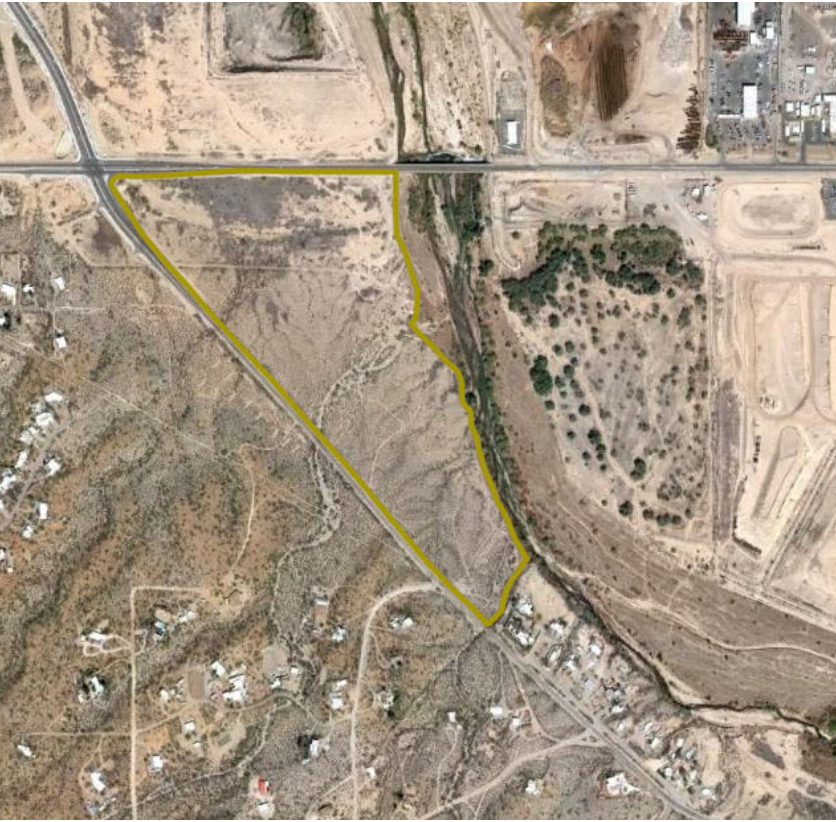


Sonoran Desert  
Ecological Boundary

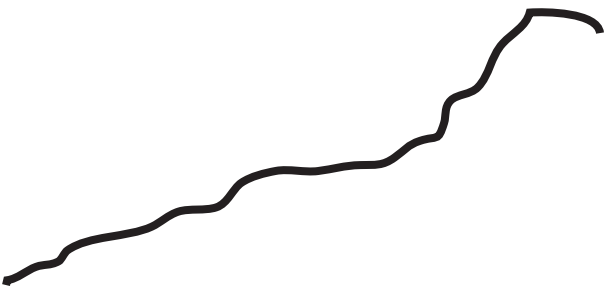
Site:  
Marana, Arizona



Google Earth 2011



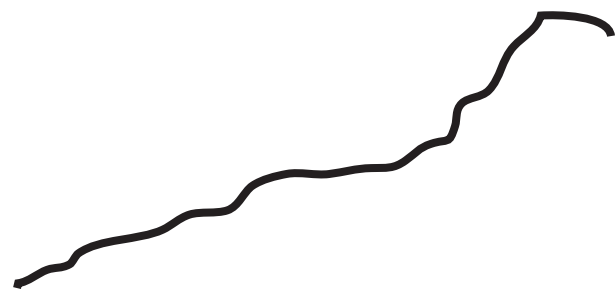
Google Earth 2011







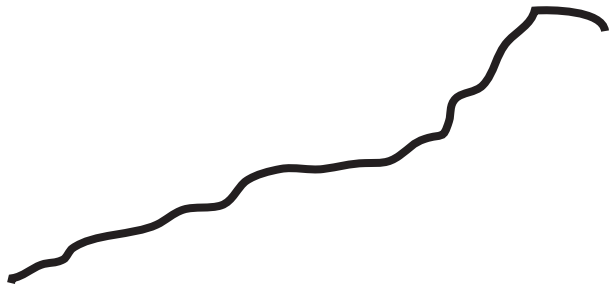




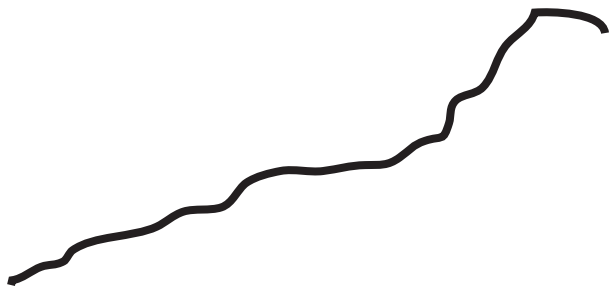




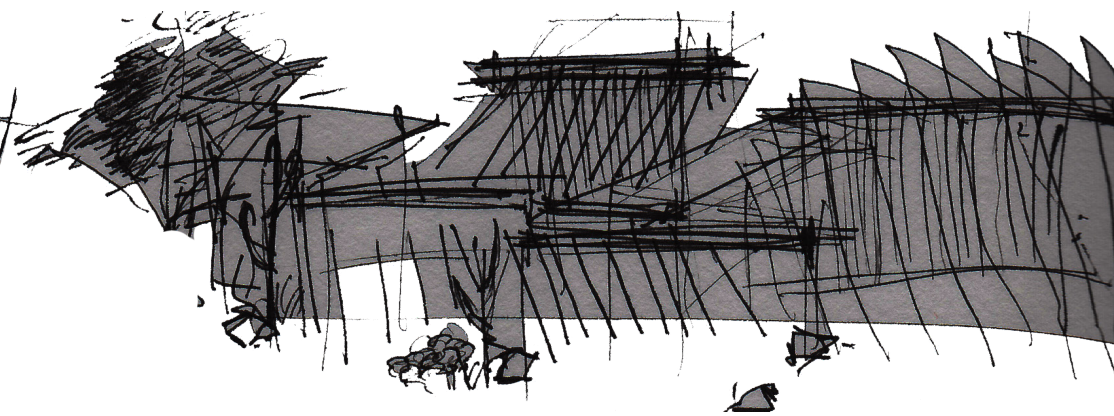
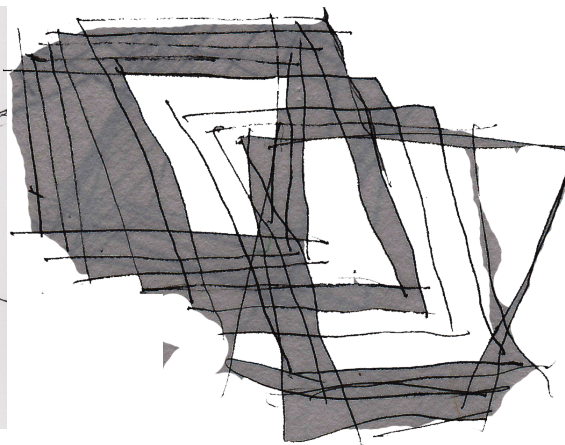
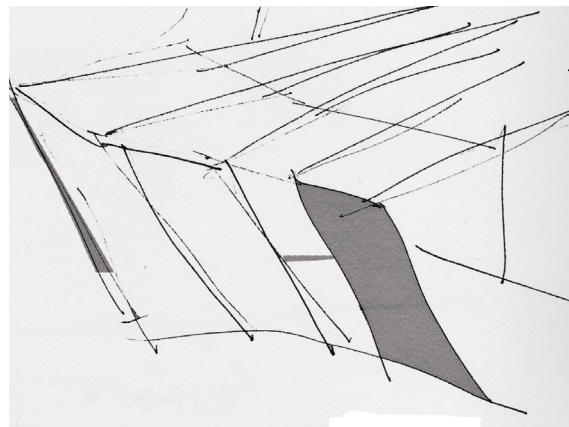
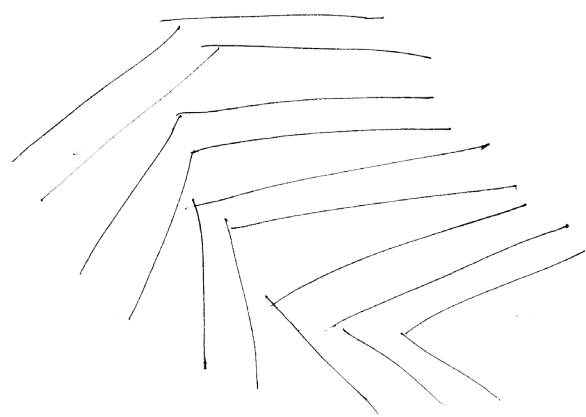
THE SITE



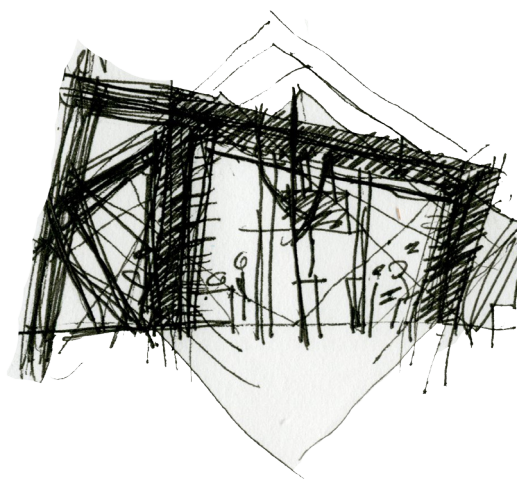
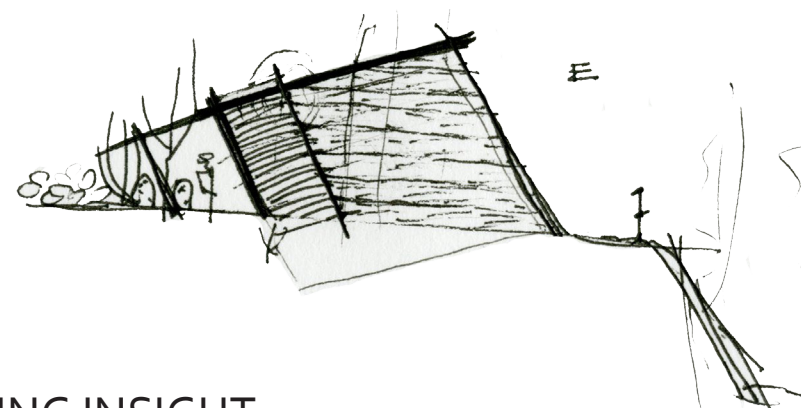
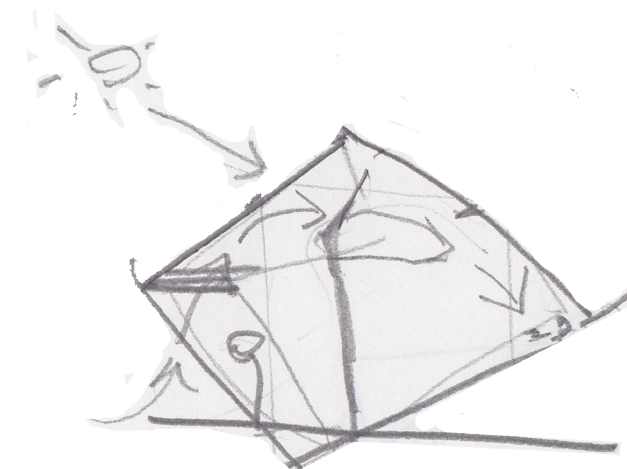
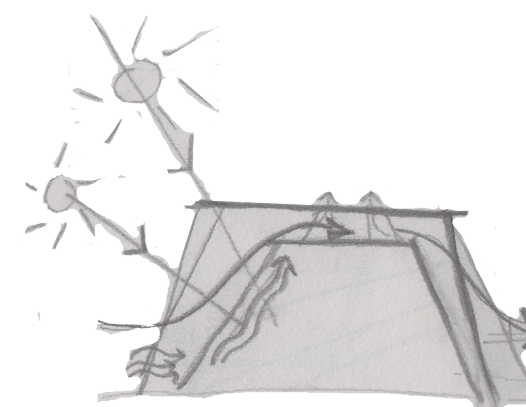
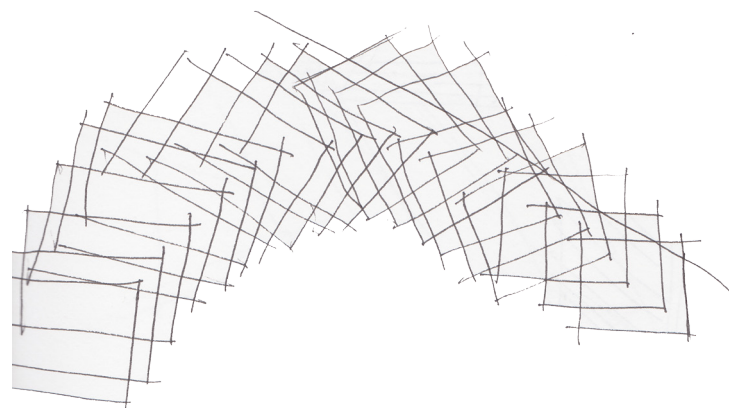
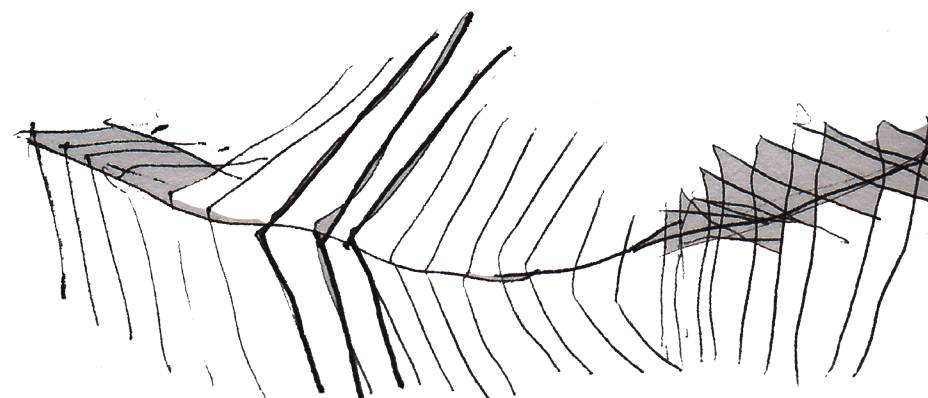




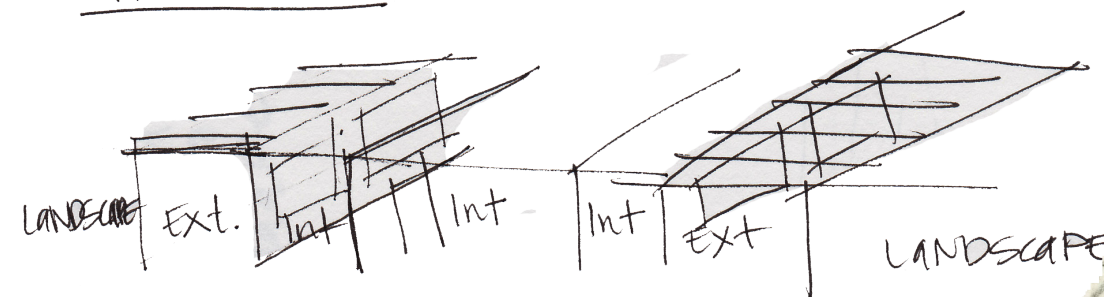




THE PROCESS



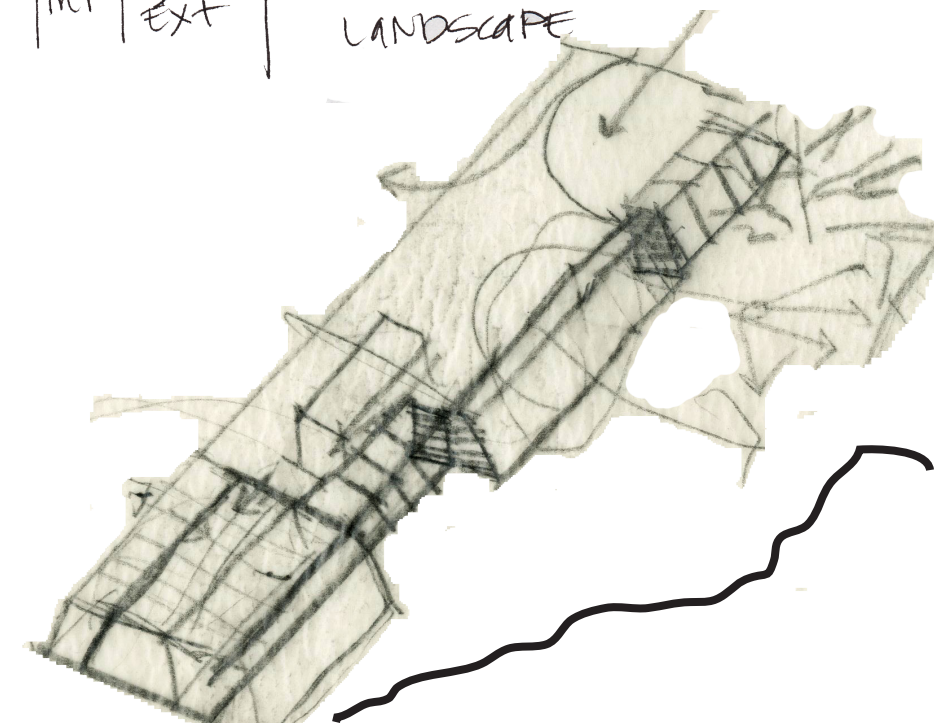
TRADITIONAL



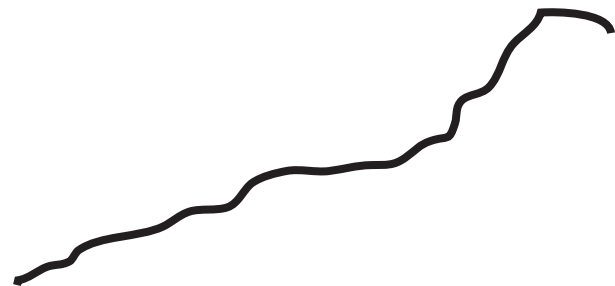
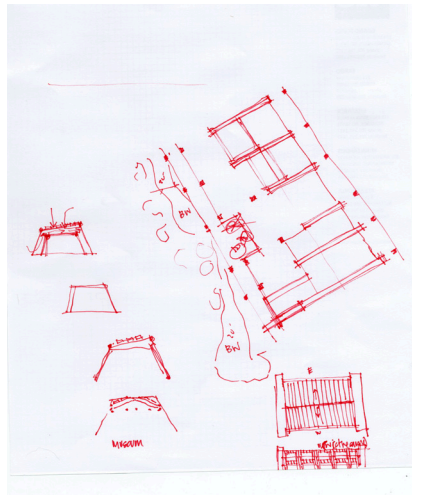
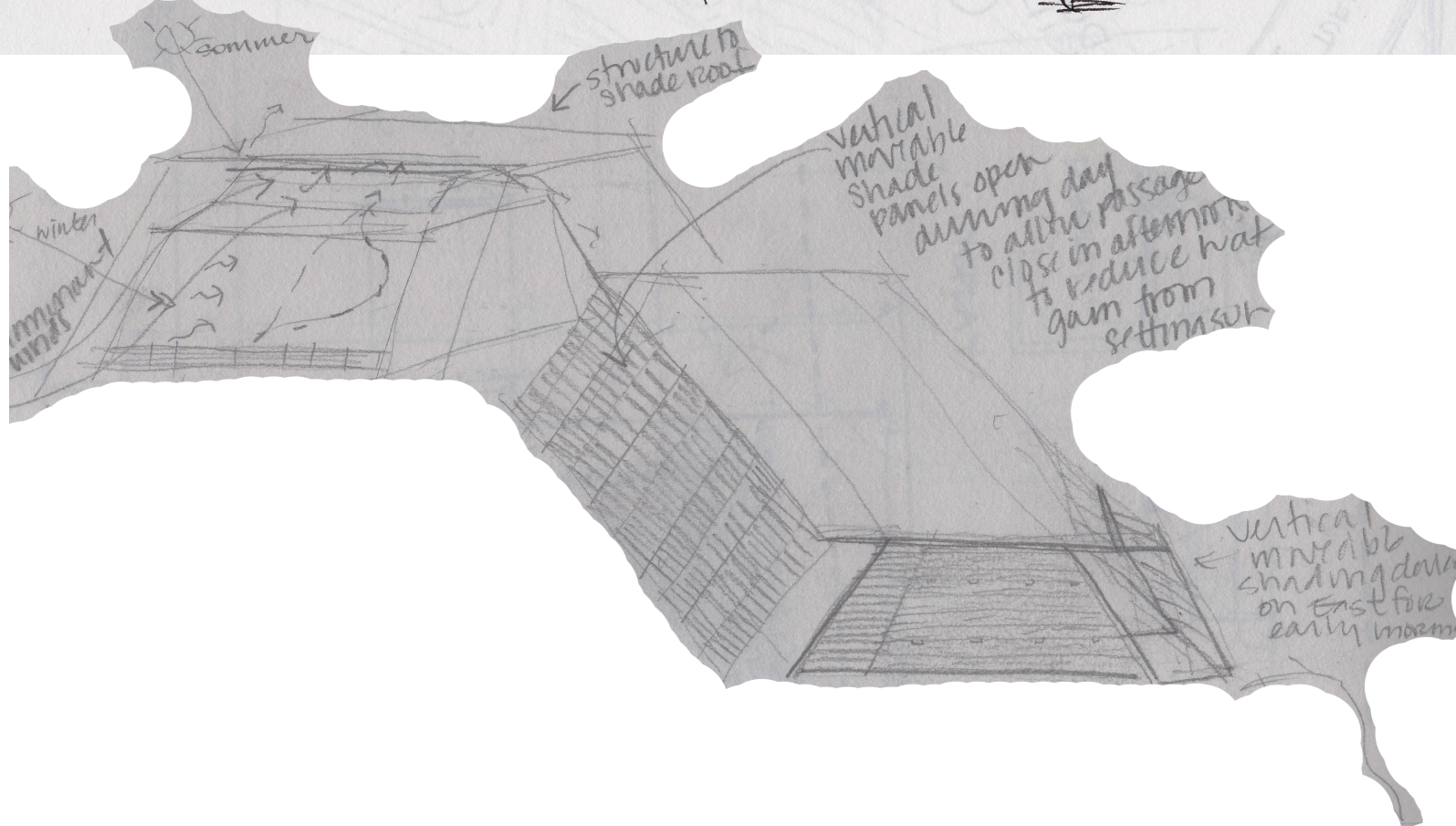
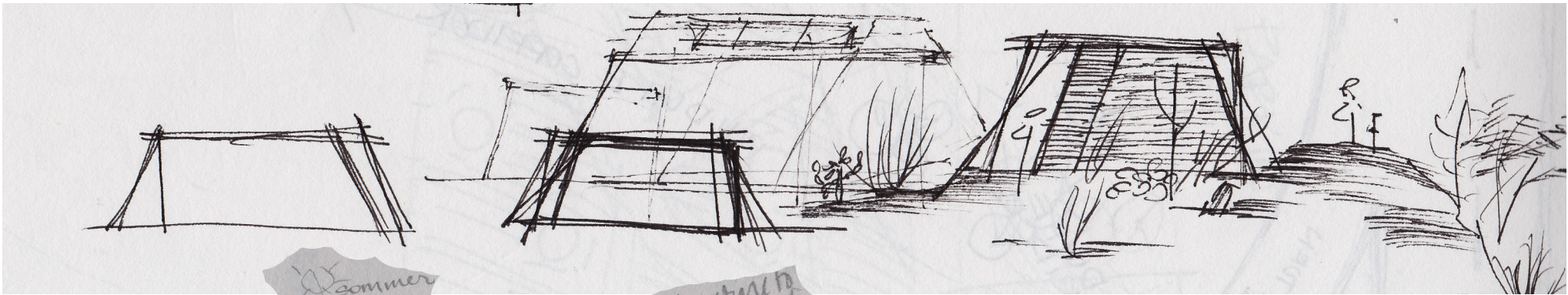
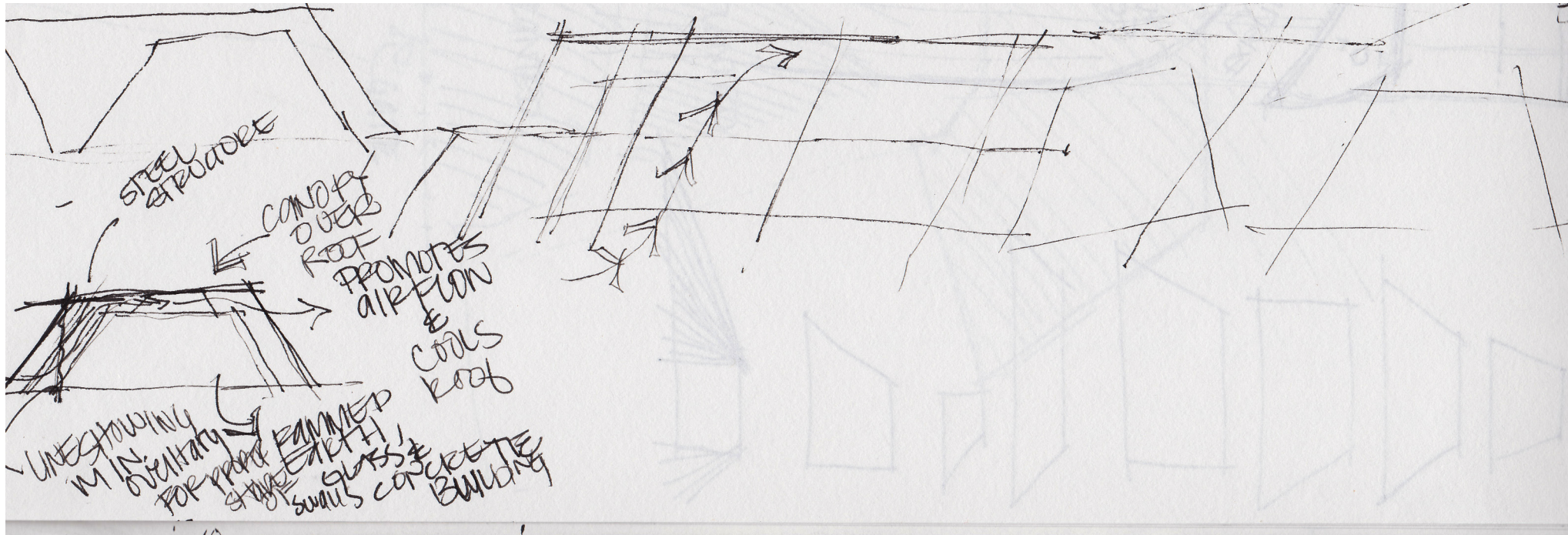
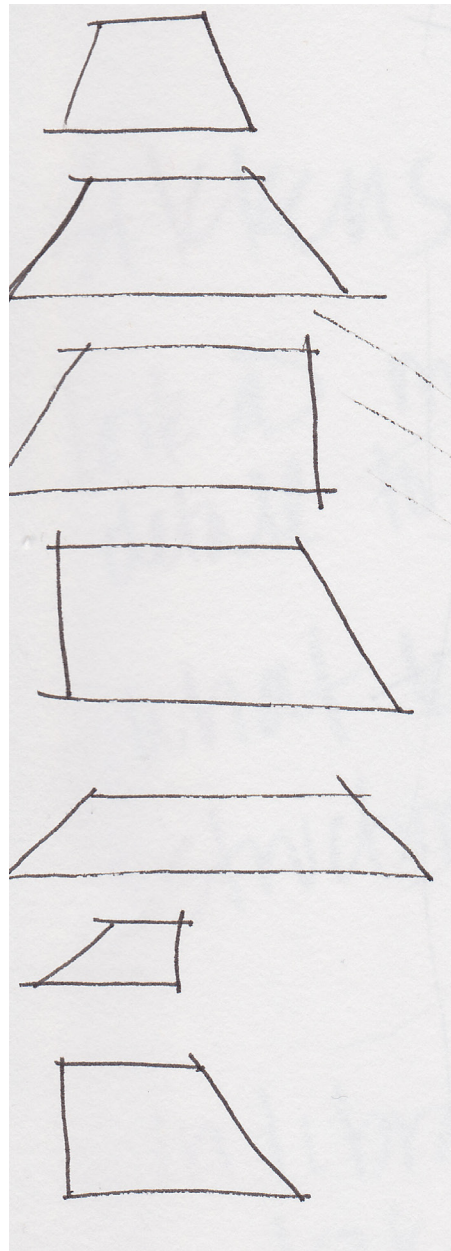
GUIDING INSIGHT

"For in the end  
we will conserve only what  
we love  
we will love only what  
we understand  
we will understand only what  
we are taught."

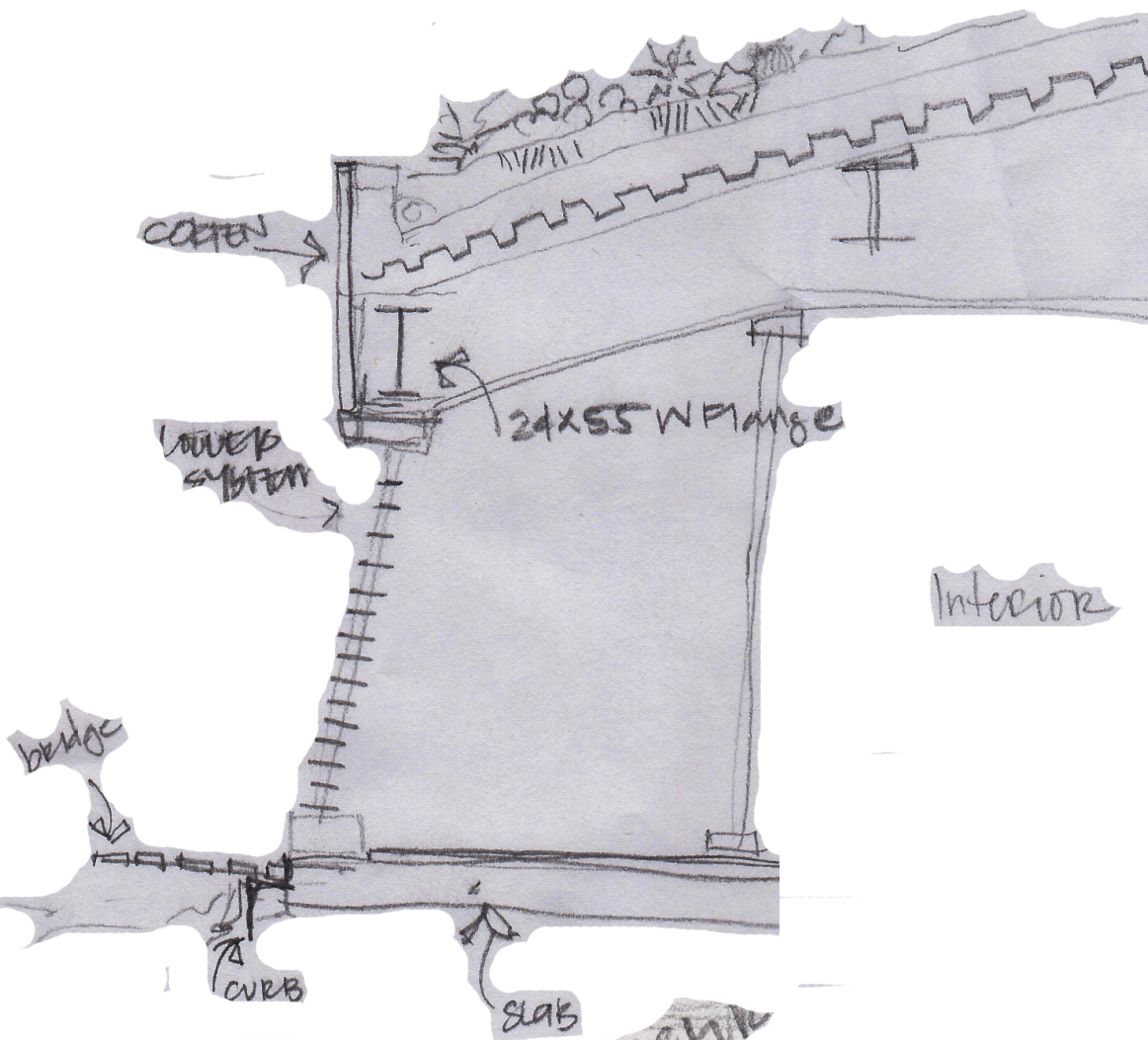
-Baba Diom, Environmentalist, 1968



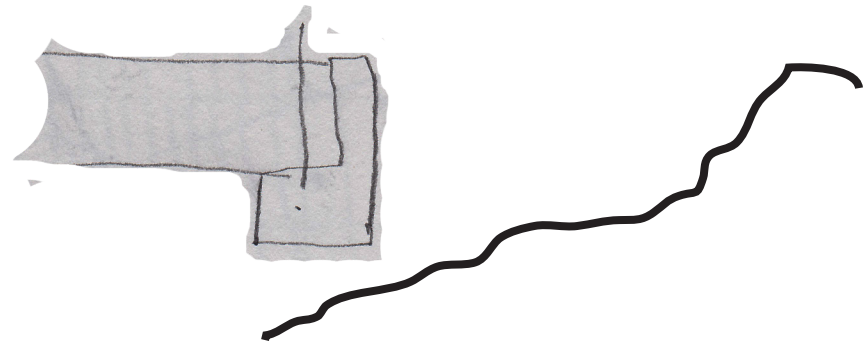
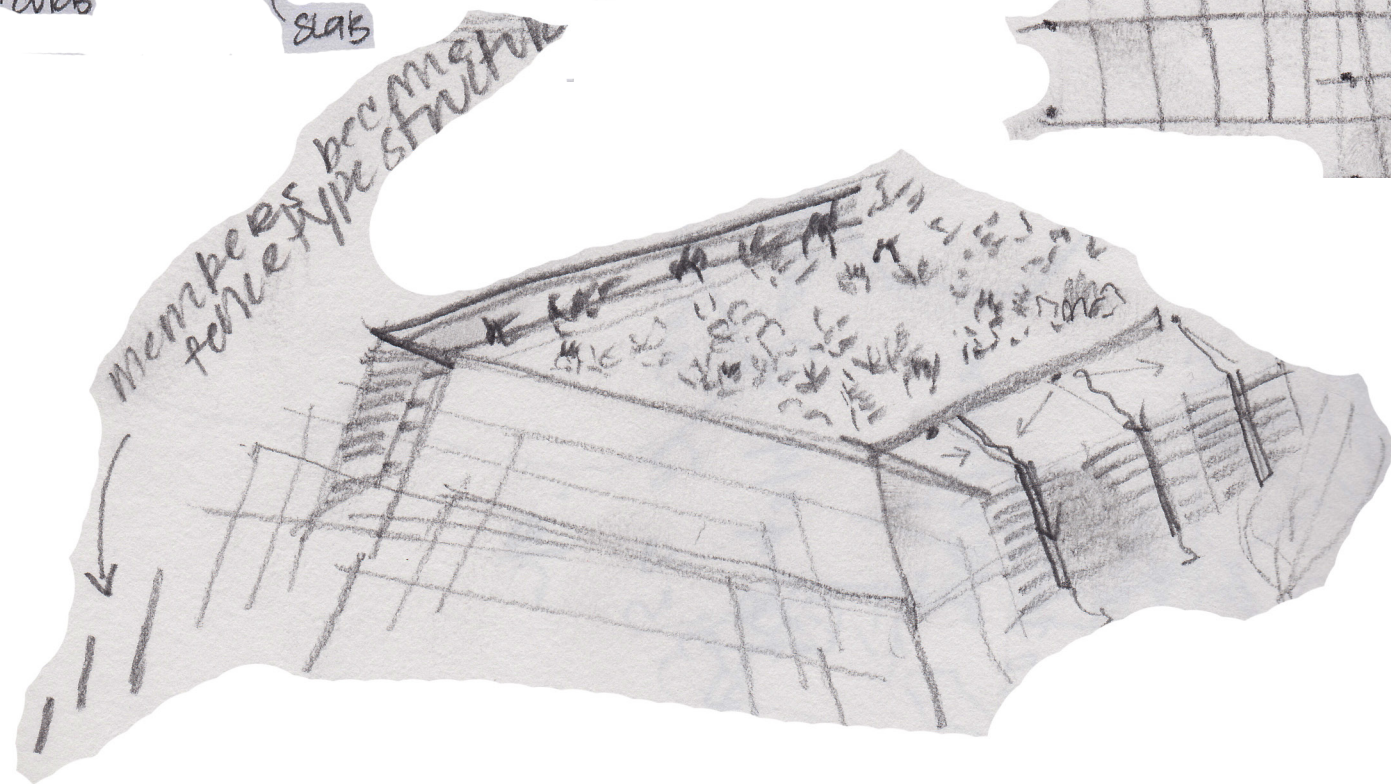
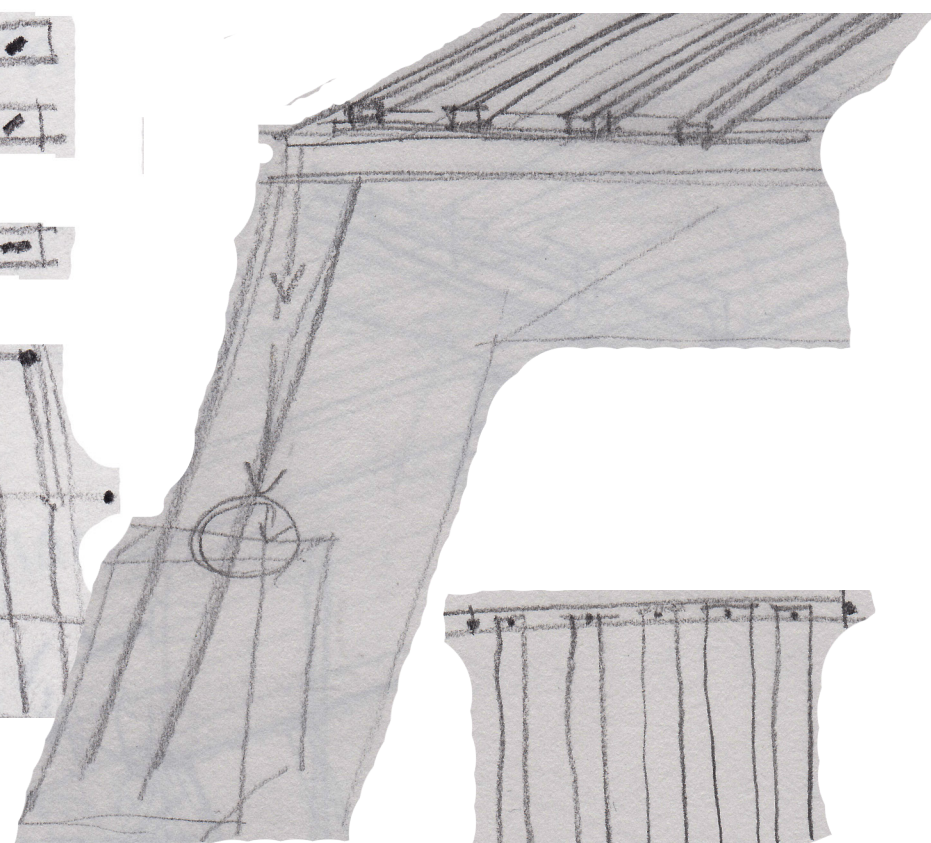
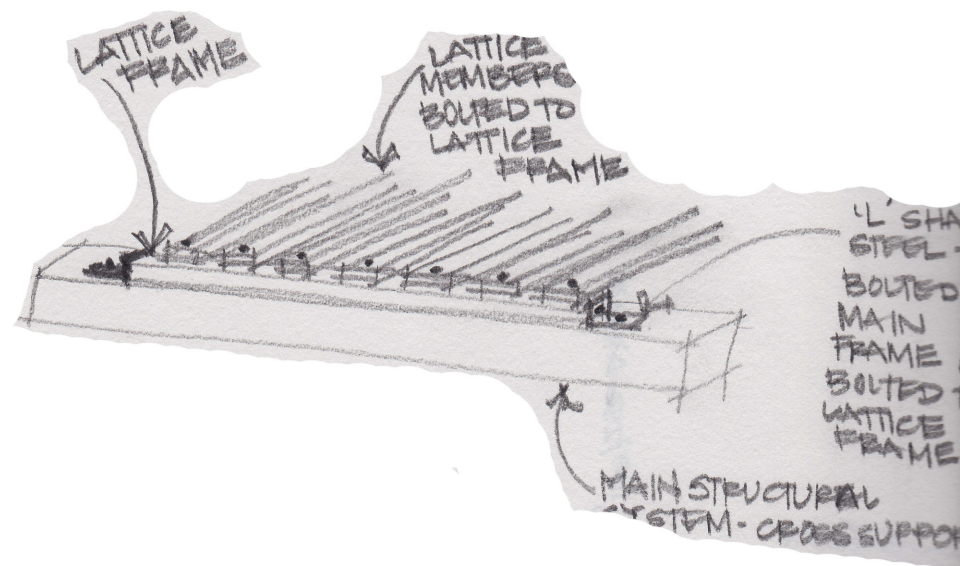
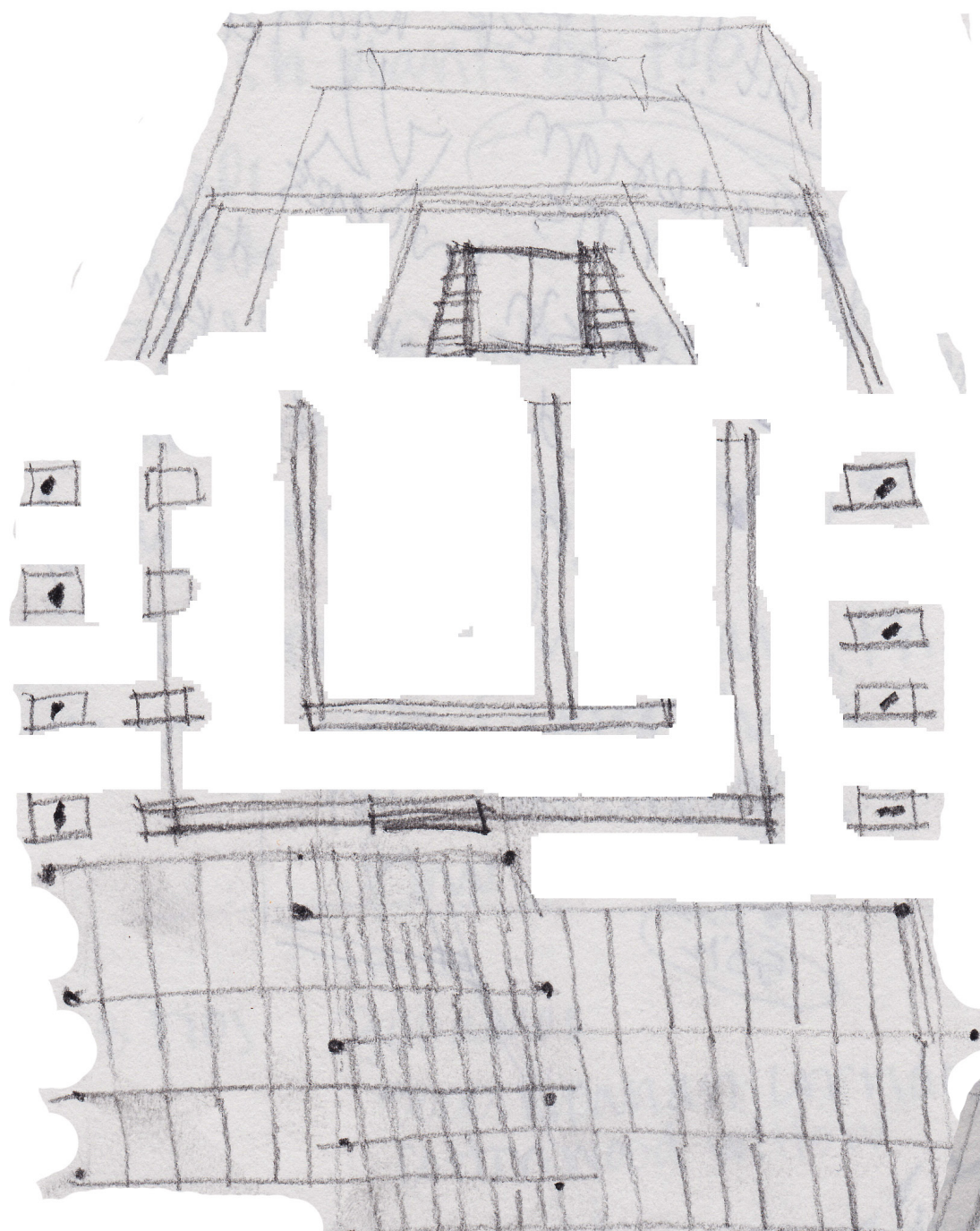








Interior





## THE COMPONENTS

### Site Features:

Bioswales

Revegetation/Vegetation

Paths follow previously established use patterns

Solar Panels

(4) 4600 gallon tanks in building to collect, clean and redistribute water throughout the building (total storage capabilities: 18400 gallons)

Garden with edible indigenous plants used in the cafe

Pervious paving using recycled concrete pavers

### Building Features:

Structural Rammed Earth Walls

Mesquite Wood

Dura-Frame Windows and Doors

Steel fabricated in Arizona

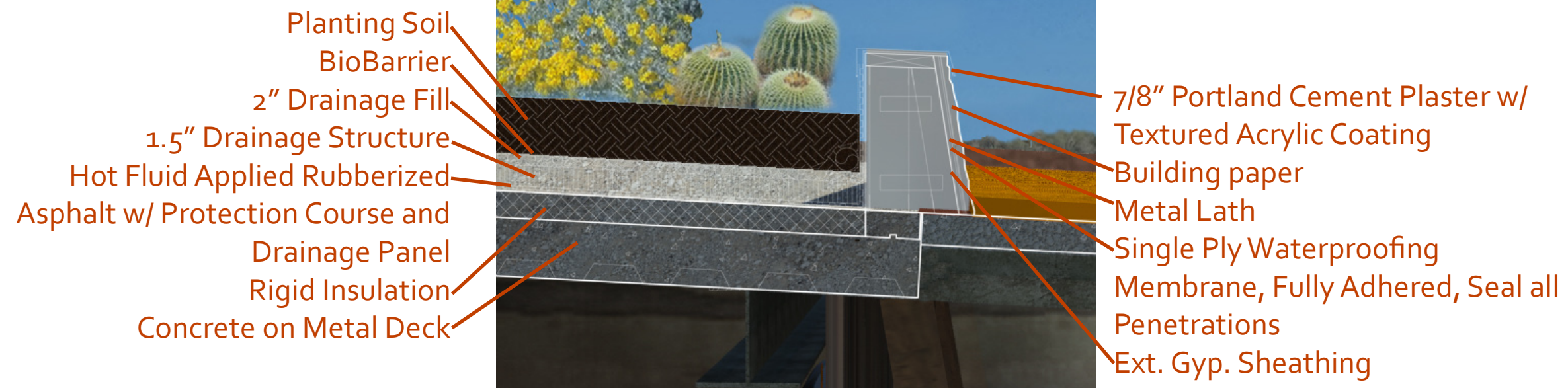
Glulams from Arizona

Portland Cement Plaster

Planted Roof on Museum

Shade structure over Cafe roof

Mechanically and Manually operated louver system to allow or deny sunlight based on time of day and time of year



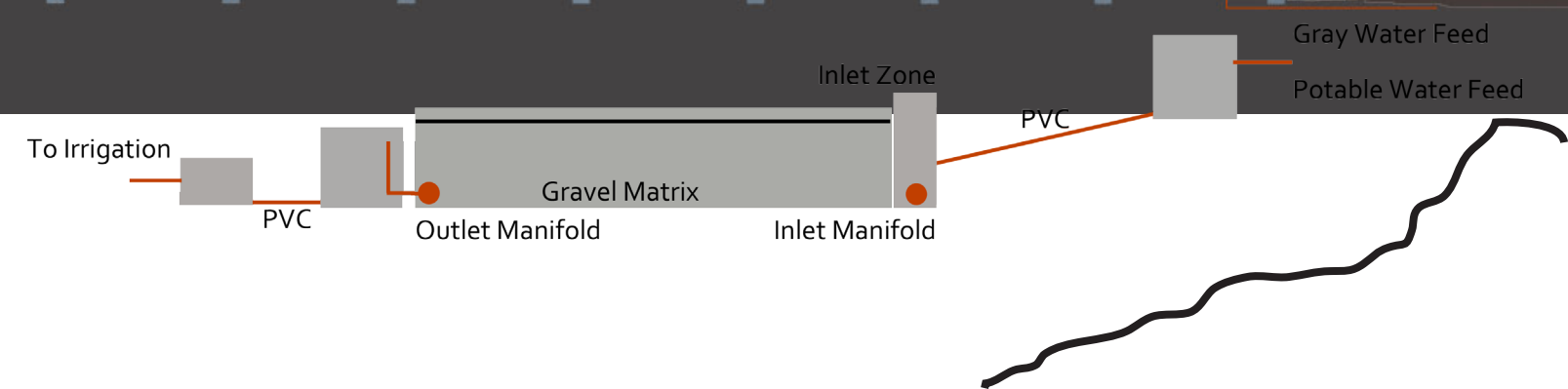




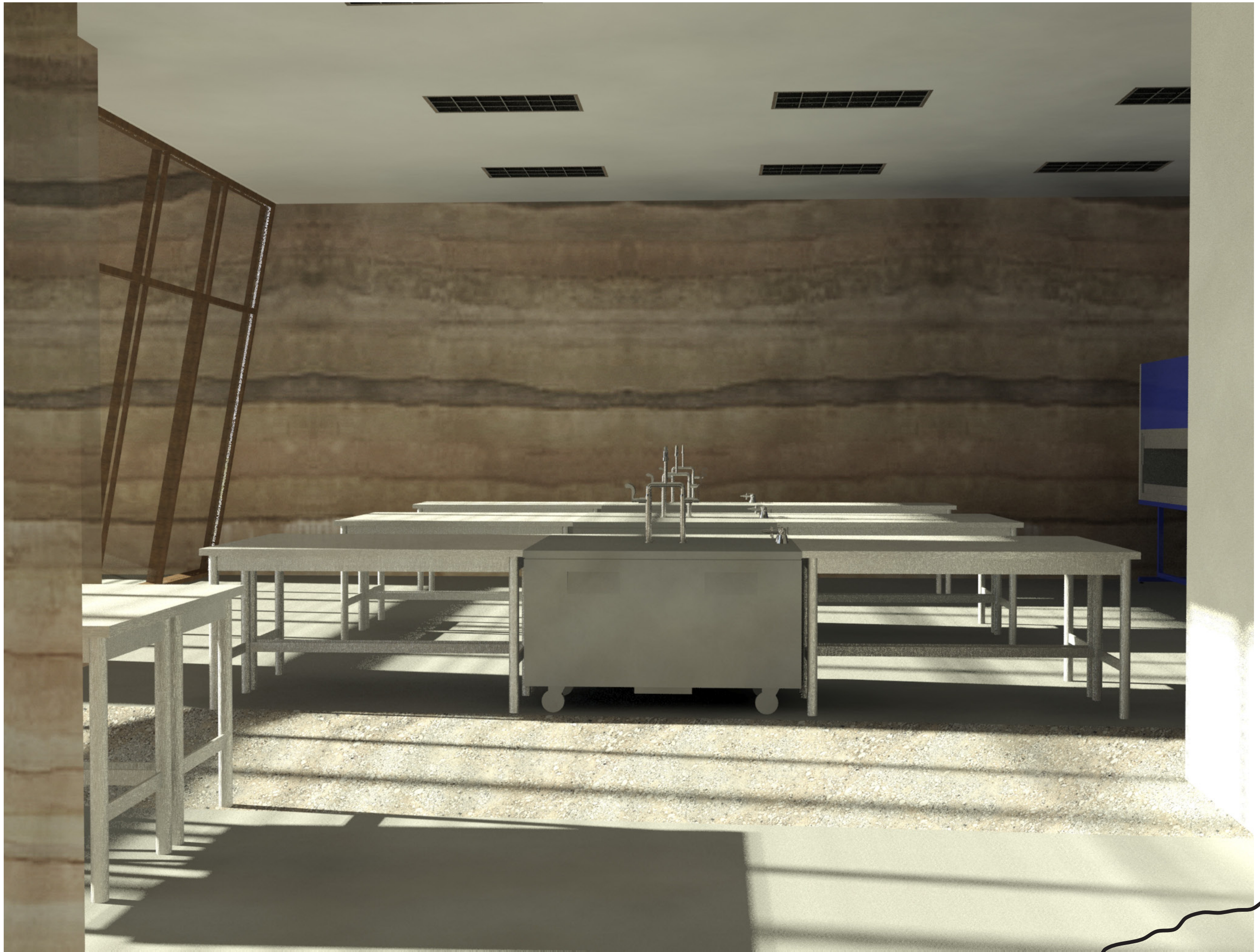
Cafe Section Perspective  
Scale: N.T.S.



Museum Section Perspective  
Scale: N.T.S.









At the gate of the garden some stand and look within, but do not care to enter. Others step inside, behold its beauty, but do not penetrate far. Still others encircle the garden inhaling the fragrances of the flowers, and having enjoyed their full beauty pass out the gate. But there are always some who enter and becoming intoxicated with the splendor of what they behold remain for life to tend to the garden."

-Abdu'l-Baha

THE DESIGN

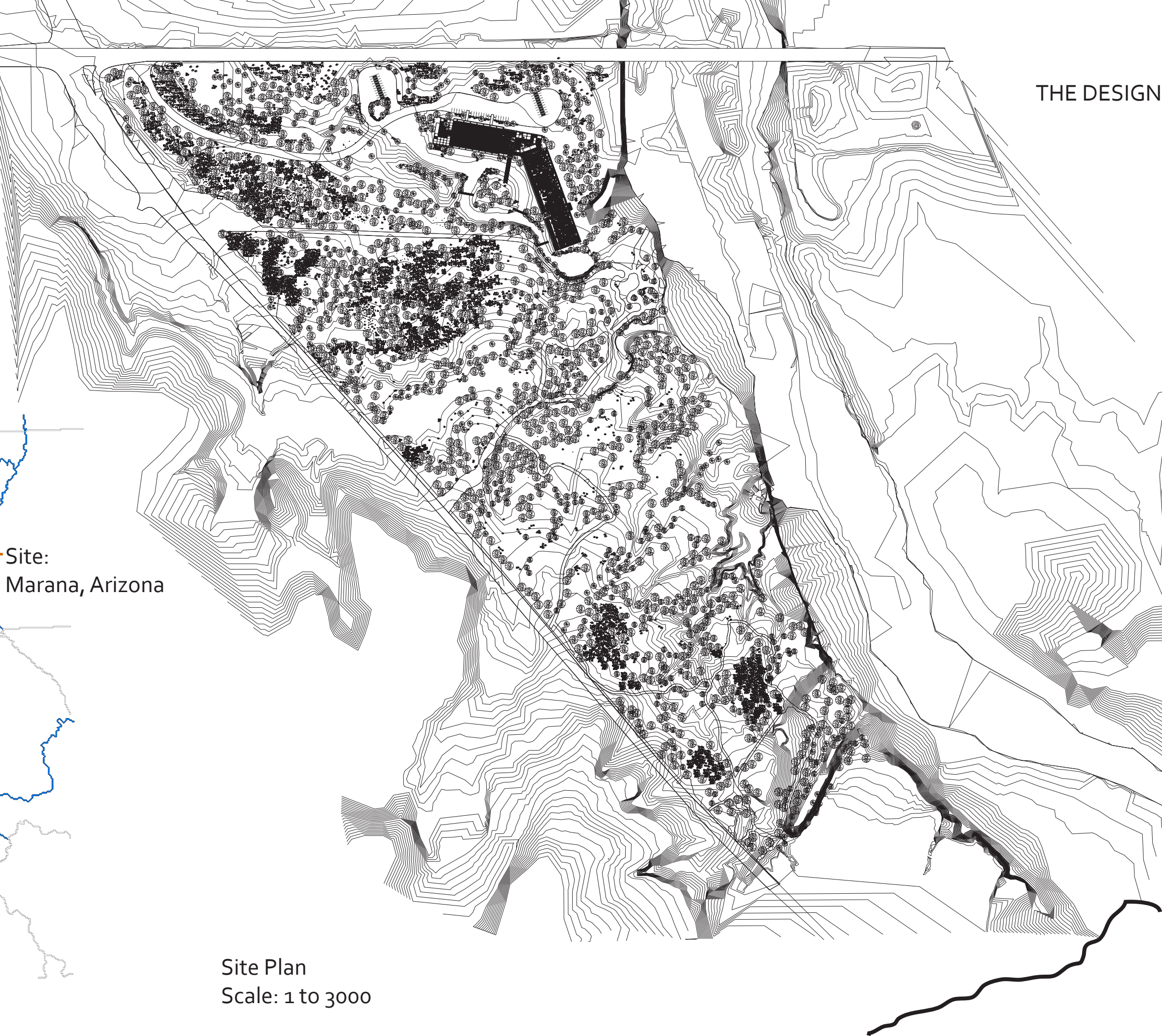
Sonoran Desert  
Ecological Boundary

Site:  
Marana, Arizona



Geographic Location  
Scale: N.T.S.

Site Plan  
Scale: 1 to 3000










## Floor Plan Legend:

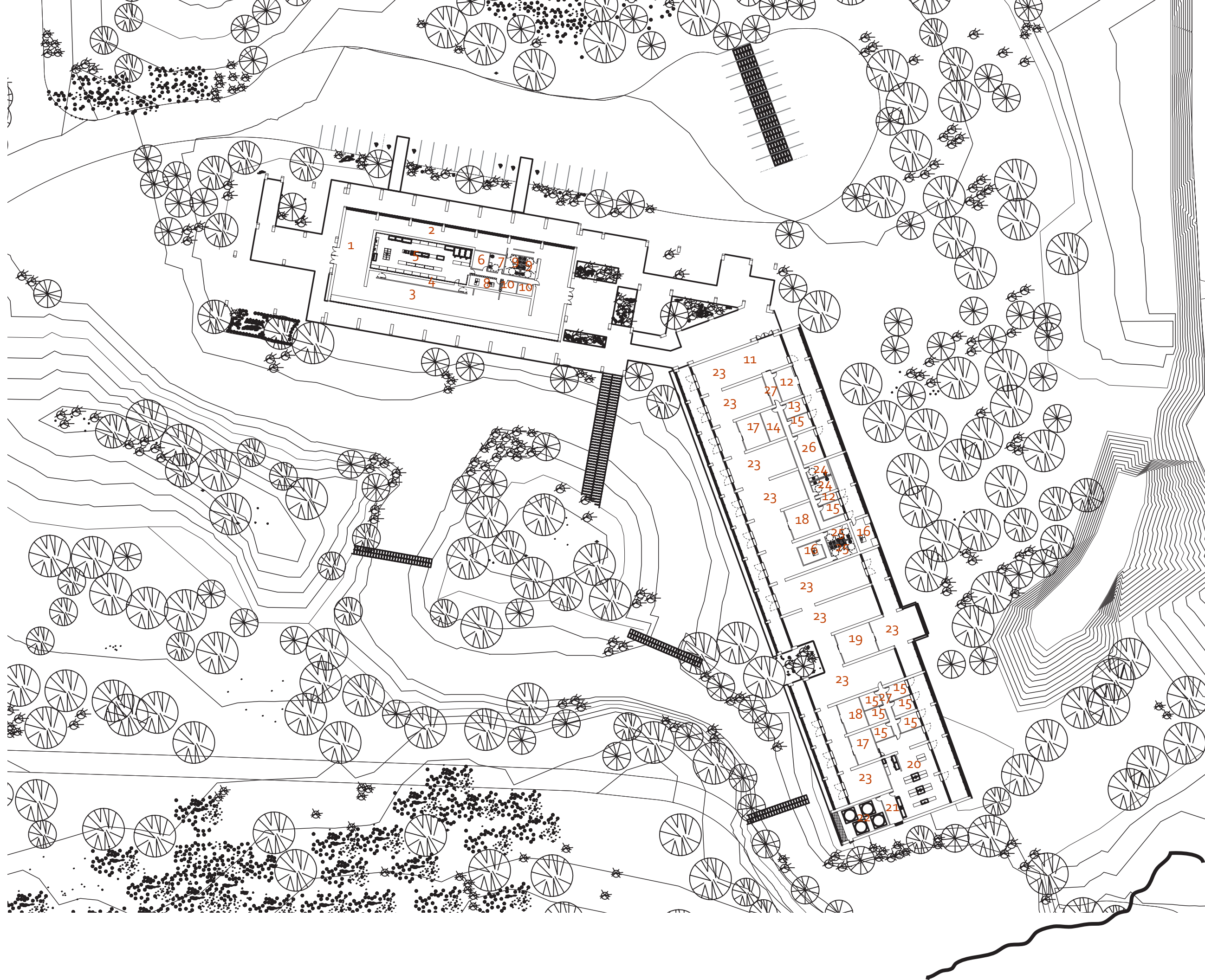
### Café:

- 1. Entry/Reception
- 2. Casual Dining/ Social
- 3. Dining
- 4. Server Walk
- 5. Kitchen
- 6. Kitchen Manager
- 7. Private Toilet
- 8. Mechanical
- 9. Public Toilets
- 10. Private Lockers

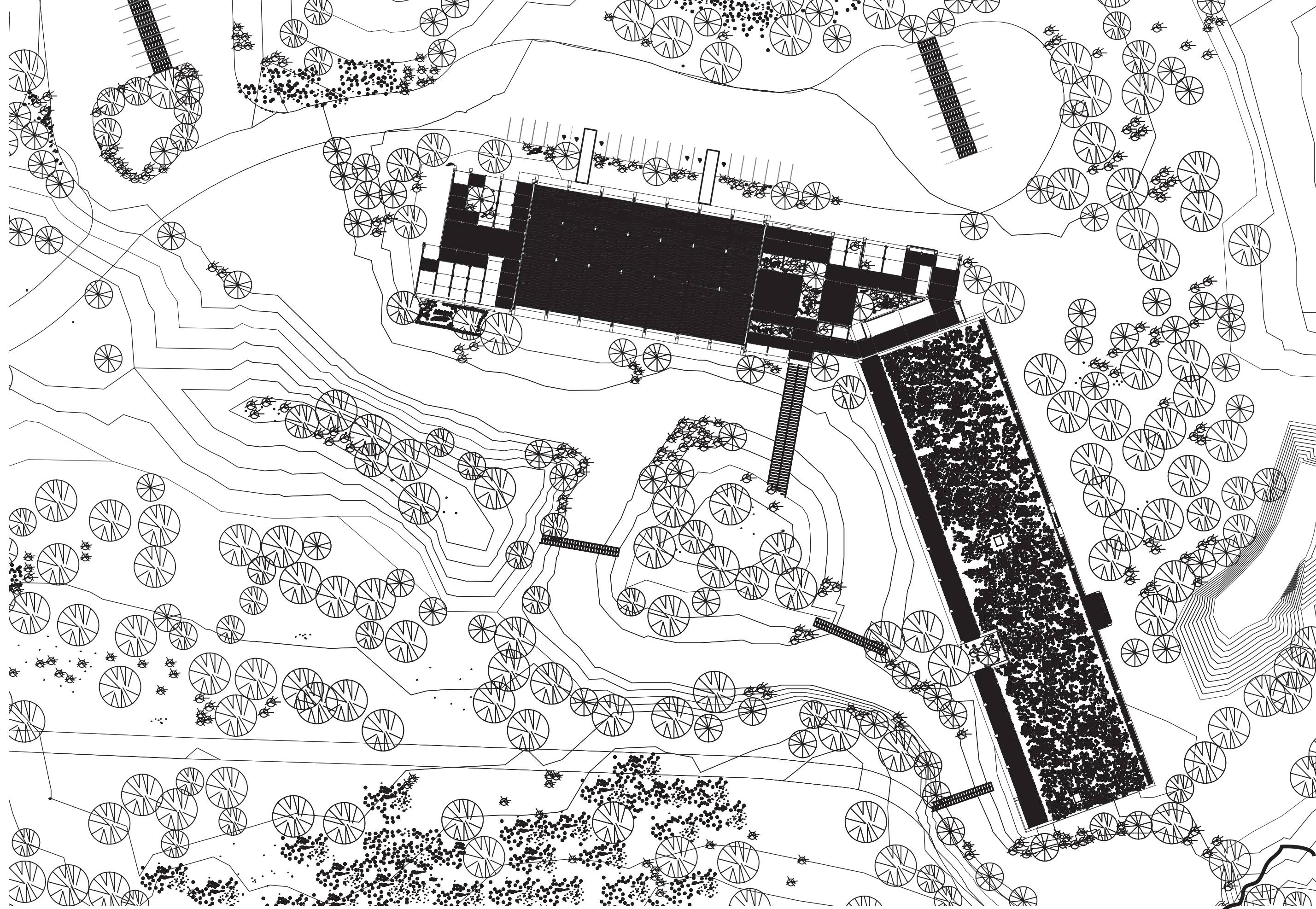
### Museum:

- 11. Entry/Reception
- 12. Storage
- 13. Director
- 14. Small Conference
- 15. Office
- 16. Mechanical
- 17. Presentation Room
- 18. Classroom
- 19. Digital Learning Experience
- 20. Laboratory
- 21. Laboratory Mechanical
- 22. Water Collection Tanks
- 23. Display
- 24. Private Toilets
- 25. Public Toilets
- 26. Large Conference Room
- 27. Corridor

 Floor Plan  
Scale: 1/64" = 1'-0"







Roof Plan  
Scale: 1/64" = 1'-0"





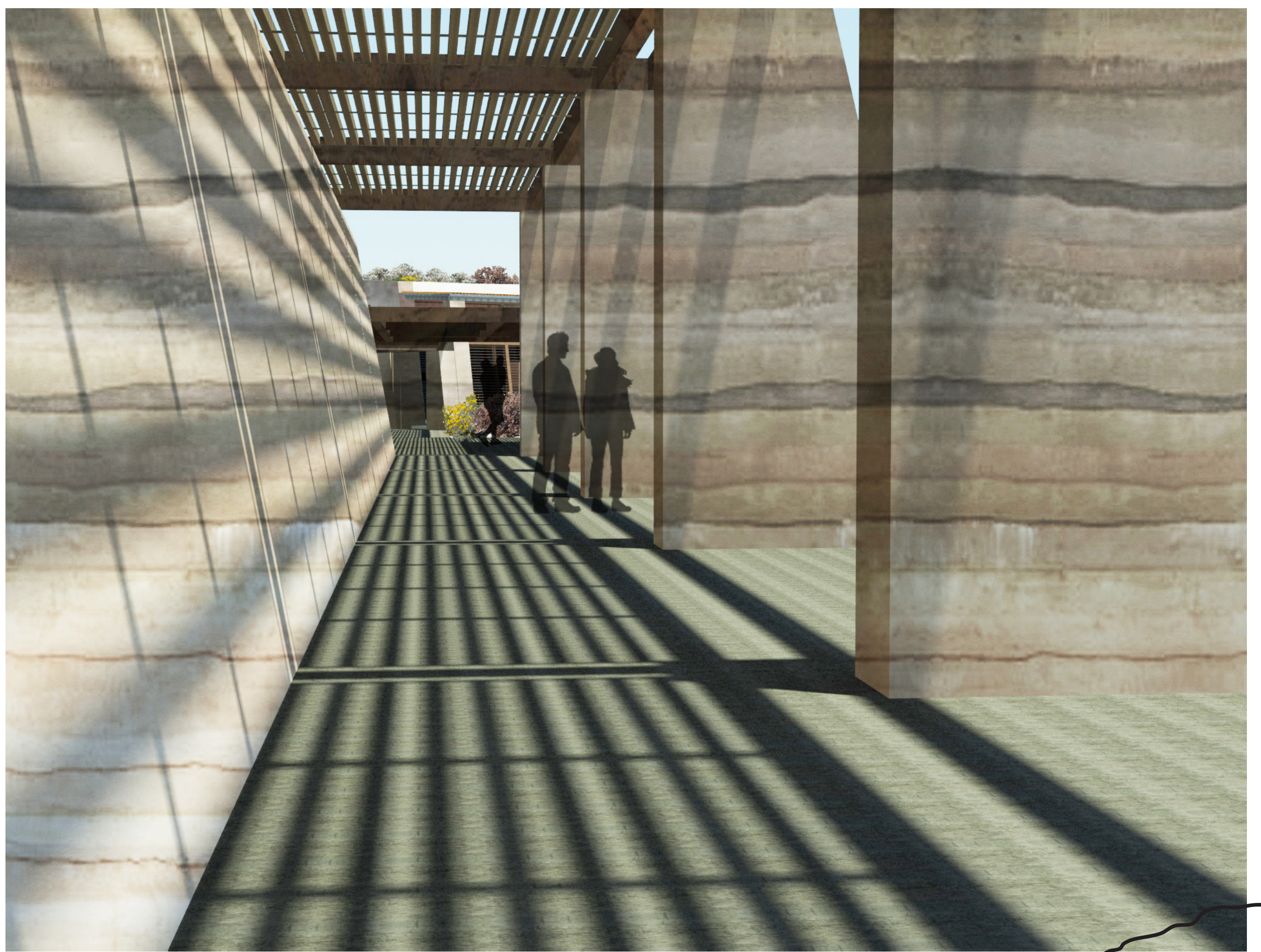




























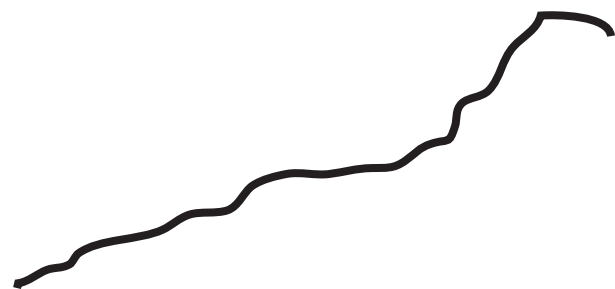














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Thank you

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